

REMARKS

Claims 15 and 20-28 are pending in this application. Claims 22 and 24 are amended herein. Support for the amendments to the claims may be found in the claims as originally filed. Reconsideration is requested based on the foregoing amendment and the following remarks.

Response to Arguments:

The Applicants appreciate the consideration given to their arguments, and the new grounds of rejection. Further favorable consideration is requested.

Objections to the Claims:

Claims 22 and 24 were objected to for informalities. Claims 22 and 24 were amended in substantial accord with the Examiner's suggestions. The Examiner's suggestions are appreciated. Withdrawal of the objection is earnestly solicited.

Claim Rejections - 35 U.S.C. § 103:

Claims 15, 24, 25, 27, and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0137526 to Shinohara (hereinafter "Shinohara") in view of U.S. Patent Application Publication No. 2005/0099942 to Kurihara (hereinafter "Kurihara"). The rejection is traversed. Reconsideration is earnestly solicited.

According to amended claim 15, a method for determining the position of a first mobile radio communication device using the position information of neighboring second mobile radio communication devices is claimed. A step of emitting an inquiry signal includes requesting that each second mobile radio communication terminal device send an acknowledgement signal indicating a readiness thereof to participate in determination of the local position of the first mobile radio communication terminal device. The second clause of claim 15, in particular, recites:

Before emitting a retrieval signal, emitting a preceding inquiry signal from the first mobile radio communication terminal device requesting that each second mobile radio communication terminal device send an acknowledgement signal indicating a readiness thereof to participate in determination of the local position of the first mobile radio communication terminal device, wherein the preceding inquiry signal is a broadcast radio signal.

Neither Shinohara nor Kurihara teaches, discloses, nor suggests “before emitting a retrieval signal, emitting a preceding inquiry signal from the first mobile radio communication terminal device requesting that each second mobile radio communication terminal device send an acknowledgement signal indicating a readiness thereof to participate in determination of the local position of the first mobile radio communication terminal device, wherein the preceding inquiry signal is a broadcast radio signal,” as recited in claim 15.

The Office Action asserts in section 7, at page 4, that:

Shinohara teaches a method of determining a local position of a first mobile radio communication terminal device in a radio cell of a radio network of a radio communication system, wherein the radio cell is fixed by a base station, the method comprising: before emitting a retrieval signal, emitting a preceding inquiry signal from the first mobile radio communication terminal device requesting that each second mobile radio communication terminal device send an acknowledgement signal indicating a readiness thereof to participate in determination of the local position of the first mobile radio terminal device, wherein the preceding inquiry signal is a broadcast radio signal.

Paragraph [0056] of Shinohara, however, describes:

In the second embodiment, a procedure is shown for a case in which response messages from a plurality of wireless communication modules are sent back in response to a "request response" message that is broadcast from mobile telephone 1.

Hence, according to Shinohara, the response messages are sent from the wireless communication modules, which give the local information.

According to Shinohara, wireless communication modules 8 and 10 are installed in a mural and in an automatic ticket dispenser and are not part of a second mobile radio communication terminal device.

Consequently, a first difference between presently pending claim 15 and Shinohara is that according to claim 15, the inquiry signal is directed to each second mobile radio communication terminal device, wherein in Shinohara, the request response for the purpose of detecting whether a wireless communication module that can communicate is directed to a stationary wireless module.

As also described in paragraphs [0058] to [0060] of Shinohara, the request response message is broadcast from mobile telephone and received by wireless communication module 8 that is installed in a stationary device, instead of “emitting a preceding inquiry signal from the first

mobile radio communication terminal device requesting that each second mobile radio communication terminal device send an acknowledgement signal,” as recited in claim 15. .

Further, it is alleged in the above-mentioned Office Action that Shinohara cites “transmitting, from the first mobile radio communication terminal device, after receipt of the acknowledgement signal, a retrieval signal retrieving position information of the second mobile radio communication terminal device that sent the received acknowledgement signal.”

Paragraph [0064], however, very concretely describes that the “request positional information list” message of Shinohara is transmitted from the mobile telephone 1 to the wireless communication module that is installed in the selected stationary device by way of second wireless communication means 12, instead of “transmitting, from the first mobile radio communication terminal device, after receipt of the acknowledgement signal, a retrieval signal retrieving position information of the second mobile radio communication terminal device that sent the received acknowledgement signal,” as recited in claim 15.

Hence, it is clear that the wireless communication modules, which are retrieved by the mobile phone, are stationary devices, which is quite the contrary to claim 15, in which the position is retrieved from the second mobile radio communication terminal device.

Thus, according to claim 15 not only the inquiry broadcast signal is directed to the mobile radio communication terminal devices, but also the retrieval message, which is both not anticipated by Shinohara.

Further, it is mentioned in the above Office Action that Shinohara cites “transmitting position information by at least one radio signal from at least one second mobile radio communication terminal device, the location of which is known either to the at least one second mobile radio communication terminal device or the radio network, and which is either in the radio cell or in another radio cell, the at least one radio signal being transmitted to the first mobile radio communication terminal device via either a direct radio connection or an indirect radio connection via the radio network.”

However paragraph [0059] explains that the positional information is obtained from stationary wireless communication module 8, which is not a second mobile radio communication terminal device. Paragraph [0065] also treats of the stationary wireless communication module, which transmits to mobile telephone 1 some data about the positional information.

Thus, it is clear that Shinohara does not anticipate the transmission of position information by at least one radio signal from at least one second mobile radio communication terminal device.

Further, it has to be noted that Shinohara does not describe an exact self-localisation of the first mobile radio communication terminal device. In fact, Shinohara merely describes the transmission of the position of the stationary wireless communication modules to the mobile phones, wherein the stationary wireless communication modules are located in a distance of up to 50 m from the mobile phones. Hence, according to Shinohara, the position of the mobile phones is not detected in an exact manner. The method of Shinohara is rather characterized by the transmission of position data stored in the stationary wireless communication devices to the mobile phones. Hence a process of determining the position the mobile phones is not described in Shinohara.

However, according to the method of claim 15, in case a plurality of second mobile radio communication terminal devices are available, the position of the first second mobile radio communication terminal device can be determined using the positioning information of the second mobile radio communication terminal devices. Further, position of the first mobile radio communication terminal device can be determined more exactly and independently from additional stationary wireless communication module, which is for example a part of a mural or an automatic ticket dispenser.

Furthermore, on page 5 of the Office Action it is alluded that "Shinohara does not teach inferring a distance between the first mobile radio communication terminal device and the at least one second mobile radio communication terminal device on the basis of the signal propagation time of the at least one radio signal."

However, neither Kurihara nor Shinohara describes the feature of emitting a preceding inquiry signal from the first mobile radio communication terminal device requesting that each second mobile radio communication terminal device send an acknowledgement signal indicating a readiness thereof to participate in determination of the local position of the first mobile radio terminal device, wherein the preceding inquiry signal is a broadcast radio signal.

As explained above, Shinohara merely describes the broadcast inquiry signal transmitted from a mobile phone to stationary wireless communication devices. Further, Kurihara is

completely silent about a broadcast signal as an inquiry signal as it is also acknowledged in the above-mentioned Office Action.

Kurihara, in particular, does not teach before the emitting of a retrieval signal, emitting a preceding inquiry signal as a broadcast signal from the first mobile radio communication terminal device requesting that each second mobile radio communication terminal device send an acknowledgement signal indicating a readiness thereof to participate in determination of the local position of the first mobile radio device and after that transmitting, from the first mobile radio communication terminal device, after receipt of an acknowledgement signal, a retrieval signal retrieving position information of the second mobile radio communication terminal device that sent the received acknowledgement signal.

Therefore, a person skilled in the art taking into account Shinohara and Kurihara would not attain to the subject of claim 15 without a further inventive step. Therefore, amended claim 15 is inventive in the light of cited references. Claim 15 is submitted to be allowable. Withdrawal of the rejection of claim 15 is earnestly solicited.

Claims 24 and 25 depend from claim 15 and add additional distinguishing elements. Claims 24 and 25 are thus also submitted to be allowable. Withdrawal of the rejection of claims 24 and 25 is earnestly solicited.

Claims 27 and 28:

The second clause of claim 27 recites:

An inquiry unit using a broadcast radio signal as a preceding inquiry signal for requesting information of readiness to participate in the position determination and position information from at least one mobile radio communication terminal device located in a radio cell of a radio network of a radio communication system or in a different radio cell, wherein the radio cells are fixed by base stations, a position of the at least one mobile radio communication terminal device being known to either the at least one mobile radio communication terminal device or to the radio network.

Neither Shinohara nor Kurihara teaches, discloses, or suggests "using a broadcast radio signal as a preceding inquiry signal for requesting information of readiness to participate in the position determination and position information from at least one mobile radio communication terminal device located in a radio cell of a radio network of a radio communication system or in a different radio cell, wherein the radio cells are fixed by base stations, a position of the at least one mobile radio communication terminal device being known to either the at least one mobile

radio communication terminal device or to the radio network," as discussed above with respect to the rejection of claim 15. Claim 27 is thus also submitted to be allowable, for at least those reasons discussed above with respect to the rejection of claim 15. Withdrawal of the rejection of claim 27 is earnestly solicited.

Claim 28 depends from claim 27 and adds further distinguishing elements. Claim 28 is thus also submitted to be allowable. Withdrawal of the rejection of claim 28 is earnestly solicited.

Claim 20:

Claim 20 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Shinohara and Kurihara in view of US Patent Application Publication No. 2003/0129977 to Dolwin (hereinafter "Dolwin"). The rejection is traversed. Reconsideration is earnestly solicited.

Claim 20 depends from claim 15 and adds further distinguishing elements. Neither Shinohara nor Kurihara teaches, discloses, nor suggests "before emitting a retrieval signal, emitting a preceding inquiry signal from the first mobile radio communication terminal device requesting that each second mobile radio communication terminal device send an acknowledgement signal indicating a readiness thereof to participate in determination of the local position of the first mobile radio communication terminal device, wherein the preceding inquiry signal is a broadcast radio signal," as discussed above with respect to the rejection of claim 15. Dolwin does not either, and thus cannot make up for the deficiencies of Shinohara, Johansson, or Kurihara with respect to claim 20.

Claim 20 is thus submitted to be allowable. Withdrawal of the rejection of claim 20 is earnestly solicited.

Claim 21:

Claim 21 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Shinohara and Kurihara in view of US Patent Application Publication No. 2003/0186710 to Muhonen et al. (hereinafter "Muhonen"). The rejection is traversed. Reconsideration is earnestly solicited.

Claim 21 depends from claim 15 and adds further distinguishing elements. Neither Shinohara nor Kurihara teaches, discloses, nor suggests "before emitting a retrieval signal, emitting a preceding inquiry signal from the first mobile radio communication terminal device requesting that each second mobile radio communication terminal device send an acknowledgement signal indicating a readiness thereof to participate in determination of the

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local position of the first mobile radio communication terminal device, wherein the preceding inquiry signal is a broadcast radio signal,” as discussed above with respect to the rejection of claim 15. Muhonen does not either, and thus cannot make up for the deficiencies of Shinohara, Johansson, or Kurihara with respect to claim 21.

Claim 21 is thus submitted to be allowable. Withdrawal of the rejection of claim 21 is earnestly solicited.

Allowable Subject Matter:

The Applicants acknowledge with appreciation the indication that claims 22, 23, and 26 contain allowable subject matter.

Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all of claims 15 and 20-28 are allowable over the cited references. Allowance of all claims 15 and 20-28 and of this entire application is therefore respectfully requested.

If there are any formal matters remaining after this response, the Examiner is invited to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge them to our Deposit Account No. 19-3935.

Respectfully submitted,

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